

CLAIMS

What is claimed and desired to be covered by Letters Patent is as follows:

1. A liquid container comprising:
 - a) a bottle unit which includes
 - (1) a base end,
 - (2) a cylindrical side wall having a first end which is unitary with the base end,
 - (3) a second end,
 - (4) a longitudinal axis extending between the base end and the second end,
 - (5) a blind-ended bore which extends between the base end and the second end,
 - (6) an inner surface on the side wall adjacent to the blind-ended bore, the inner surface on the side wall having an internal dimension,
 - (7) a rim on the second end,
 - (8) an outer surface on the cylindrical side wall, the outer surface of the cylindrical side wall having an external dimension,
 - (9) an external screw thread on the outer surface of the cylindrical side wall, the external screw thread extending from adjacent to the

rim toward the base end, and

(10) an annular shoulder located on the inner surface of the cylindrical side wall adjacent to and spaced apart from the rim, the annular shoulder extending from the inner surface of the cylindrical side wall toward the longitudinal axis and having an opening centered on the longitudinal axis, the annular shoulder further including a first surface and a second surface, with the first surface being located closer to the rim than the second surface and the second surface being located closer to the bottom end than the first surface, the opening of the annular shoulder having a diametric dimension;

- b) said bottle unit having an internal lengthwise dimension which is measured between the first surface of the annular shoulder and the base end of said bottle unit;
- c) a brush unit which is located inside the blind-ended bore when in use, said brush unit including
 - (1) a brush unit body having a distal end, a proximal end, and a longitudinal axis extending between the distal end of the brush

unit body and the proximal end of the brush unit body, the longitudinal axis of the brush unit body being co-incident with the longitudinal axis of said bottle unit when the brush unit body is accommodated in the blind-ended bore of said bottle unit, the brush unit body having a length dimension measured along the longitudinal axis of the brush unit body between the distal end of the brush unit body and the proximal end of the brush unit body,

- (2) a bristle unit on the distal end of the brush unit body, the bristle unit having a proximal end fixed to the distal end of the brush unit body and a distal end spaced apart from the distal end of the brush unit body, and a longitudinal axis which extends between the distal end of the bristle unit and the proximal end of the bristle unit, the bristle unit having a length dimension which is measured along the longitudinal axis of the bristle unit between the proximal end of the bristle unit and the distal end of the bristle unit,

(3) a spring-accommodating cup on the proximal end of the brush unit body, the spring-accommodating cup including

(A) a base end that is unitary with the proximal end of the brush unit body and which extends transverse to the longitudinal axis of the brush unit body, the base end having an outer periphery and an outer peripheral dimension, the outer peripheral dimension of the base end of the spring-accommodating cup being larger than the diametric dimension of the annular shoulder of said bottle unit,

(B) a cylindrical side wall having an inner surface and an outer surface, the outer surface of the cylindrical side wall of the spring-accommodating cup having an outer dimension, the outer dimension of the cylindrical side wall of the spring-accommodating cup being smaller than the internal dimension of the inner surface of the side wall of said bottle unit, the inner surface of the cylindrical

side wall of the spring-accommodating cup having an inner dimension,

- (C) a rim on the cylindrical side wall of the spring-accommodating cup spaced apart from the base end of the spring-accommodating cup,
- (D) a longitudinal axis extending between the rim on the cylindrical side wall of the spring-accommodating cup and the base end of the spring-accommodating cup, the longitudinal axis of the spring-accommodating cup being co-linear with the longitudinal axis of the brush unit body,
- (E) a blind-ended bore defined between the inner surface of the cylindrical side wall of the spring-accommodating cup and the base end of the spring-accommodating cup,
- (F) an annular detent element on the inner surface of the cylindrical side wall of the spring-accommodating cup, the detent element being located adjacent to and spaced from the rim of the cylindrical

side wall of the spring-accommodating cup, the detent element including a shoulder which extends radially from the inner surface of the cylindrical side wall of the spring-accommodating cup toward the longitudinal axis of the spring-accommodating cup, the shoulder of the detent element having a proximal end unitary with the inner surface of the side wall of the spring-accommodating cup and a distal end which is spaced apart from the inner surface of the cylindrical side wall of the spring-accommodating cup, the distal end of the detent element defining an annular opening centered on the longitudinal axis of the spring-accommodating cup, the annular opening of the detent element having an internal dimension, and

- (G) the brush unit body having an overall length dimension which is equal to the length dimension of the brush unit body plus the length dimension of the bristle

unit, the overall length dimension of the brush unit body being greater than the internal lengthwise dimension of said bottle unit, and

(4) the spring-accommodating cup being in abutting contact with the annular shoulder when said brush unit is associated with said bottle unit;

d) said brush unit being movably accommodated by said bottle unit to be movable between a stored position and a use position, with the bristle unit being in contact with the base end of said bottle unit when said brush unit is in the stored position;

e) a cap unit which includes

(1) a distal end wall,

(2) a cylindrical side wall, the cylindrical side wall of said cap unit including a first end which is unitary with the distal end wall of said cap unit and a rim which is spaced apart from the first end of the cylindrical side wall of said cap unit, a longitudinal axis extending between the distal end wall of said cap unit and the rim of the cylindrical side

wall of said cap unit, the cylindrical side wall of said cap unit having an inner surface, an outer surface and an internal dimension, the internal dimension of said cap unit being greater than the external dimension of the outer surface of the cylindrical side wall of said bottle unit, the cylindrical side wall of said cap unit having a length dimension which is measured between the distal end wall of said cap unit and the rim of the cylindrical side wall of said cap unit,

(3) a length dimension which is measured along the longitudinal axis of said cap unit between the distal end wall of said cap unit and the rim of the cylindrical side wall of said cap unit,

(4) an internal screw thread on the inner surface of the cylindrical side wall of said cap unit, the internal screw thread of said cap unit extending from adjacent to the rim of the cylindrical side wall of said cap unit toward the distal end wall of said cap unit, the internal screw thread of said cap unit

being sized and configured to threadably engage the external screw thread of said bottle unit to releasably couple said cap unit to said bottle unit,

- (5) a stem element having a proximal end fixed to the distal end wall of said cap unit, a distal end spaced apart from the distal end wall of said cap unit, a longitudinal axis extending between the proximal end of the stem element and the distal end of the stem element, the longitudinal axis of the stem element being co-linear with the longitudinal axis of the cylindrical side wall of said cap unit, the stem element further including an outer surface which is spaced apart from the inner surface of the cylindrical side wall of said cap unit, the outer surface of the stem element having an outer dimension, the outer dimension of the stem element being smaller than the inner dimension of the cylindrical side wall of the spring-accommodating cup, the stem element further including a length dimension measured between the proximal end of the stem element and the distal end of the

stem element, the length dimension of the stem element being less than the length dimension of the cylindrical side wall of said cap unit,

(6) a detent element accommodating notch defined in the outer surface of the stem element adjacent to the distal end of the stem element, the detent element accommodating notch including a shoulder having an outer end on the outer surface of the stem element and an inner end spaced apart from the outer end of the shoulder of the detent element accommodating notch toward the longitudinal axis of the stem, the detent element accommodating notch further including a sloping surface which extends between the inner end of the shoulder of the detent element accommodating notch to the outer surface of the stem, and

(7) the distal end of the stem element being located in the blind-ended bore of the spring-accommodating cup; and

f) a spring element located in the spring-accommodating cup, the spring element having a

first end in abutting contact with the distal end of the stem element and a second end in abutting contact with the base end of the spring-accommodating cup, said spring element being interposed between the stem element and the base end of the spring-accommodating cup and biasing said brush unit away from the distal end wall of said cap unit, the detent element of said brush unit engaging the detent element accommodating notch of said cap unit to prevent separation of said brush unit from said cap unit, the notch of said cap unit and the detent element of said brush unit being shaped and oriented with respect to each other to permit said brush unit to move toward the distal end wall of said cap unit against the bias of said spring element when said cap unit is screwed onto said bottle unit.

2. A liquid container comprising:

- a) a bottle unit which includes
 - (1) a tubular side wall having an inner surface and an outer surface,
 - (2) an external thread on the outer surface of the side wall, and

- (3) an annular shoulder on the inner surface of the side wall;
- b) a brush unit which includes
 - (1) a brush unit body having a proximal end and a distal end,
 - (2) a bristle unit on the distal end of the body of the brush unit,
 - (3) a spring-accommodating cup on the proximal end of the body of the brush unit, and
 - (4) a detent element on the spring-accommodating cup;
- c) a cap unit which includes
 - (1) a tubular wall having an internal surface and an external surface and an external screw thread on the outer surface of the tubular wall of the cap unit, and
 - (2) a stem having a detent element accommodating notch defined therein;
- d) the spring-accommodating cup being in abutting contact with the annular shoulder when said brush unit is associated with said bottle unit; and
- e) a spring interposed between the stem and the spring-accommodating cup and biasing said brush unit away from said bottle unit, the detent

element being received in the detent element
accommodating notch to prevent separation of said
cap unit from said brush unit.